

US EPA ARCHIVE DOCUMENT

Jim Bridger Plant
P.O. Box 158
Point of Rocks, WY 82942



October 6, 2009

Stephen Hoffman
Office of Resource Conservation and Recovery (5304P)
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue N W
Washington, D.C. 20460

Dear Mr. Hoffman,

On September 22, 2009, the PacifiCorp Jim Bridger Power Plant received the final report for the site assessment of FGD Ponds #1 and #2 that was conducted by EPA and its contractor. The letter that accompanied the report requested that the Jim Bridger Plant respond to each of the recommendations noted in Enclosure 2.

This letter and the attached document represent the Jim Bridger Plant's response to EPA's request. Each of the recommendations has been addressed with specific actions PacifiCorp will take, including a projected date of completion.

Prior to EPA's site assessment, PacifiCorp contracted with a firm specializing in dams and complex geotechnical studies to do a structural evaluation of the Jim Bridger plant coal combustion waste impoundments. The conclusion of that evaluation was very similar to the results of EPA's site assessment. That is, the impoundments at the Jim Bridger plant exhibit no signs of structural instability.

PacifiCorp is conducting additional geotechnical studies and, in conjunction with the recommendations provided by EPA's site assessment, is implementing comprehensive inspection procedures as necessary. PacifiCorp is committed to responsible environmental stewardship and safety at each of its facilities.

Sincerely,

Paul Fahlsing
Manager of Engineering and Environmental
(On behalf of Bob Arambel, Managing Director)

Enclosure

PacifiCorp Response to EPA Recommendations

12.1.1 FGD Pond 1

1. During the interim period until the final cover is installed and closure is completed, it is important to be able to route flood flows across FGD Pond 1 such that unacceptable erosion damage to Dike B does not occur. Measures could include maintaining adequate capacity for flood storage or providing erosion protection for Dike B.

PacifiCorp Response: FGD Pond 1 is currently under-going closure. The stormwater (including flood flows) diversion will be constructed while the cap is being placed on the pond. This will prevent stormwater and floods from flowing onto the pond, and prevent erosion damage to Dike B. Any erosion damage to Dike B which occurs during the on-going construction of the cap and diversion structure will be repaired. Work on the cap construction and diversion will begin in the fall of 2009. The diversion is expected to be completed by October 1, 2010.

12.1.2 FGD Pond 2

1. The calculated factor of safety at Station 8+00 of 1.33 for static steady-seepage is below the state and federal guidance of 1.5. Re-evaluate this loading condition at Station 8+00 and, if the issue cannot be resolved by analysis, implement measures to improve the stability to achieve a factor of safety of 1.5. Also, the 2001 stability results could not be reproduced in check analyses and did not address the anticipated loss of embankment due to the planned erosion of the upstream slope. Revisit and revise the 2001 stability analysis as necessary to complete the documentation of the design.

PacifiCorp Response: A geotechnical firm will evaluate the loading condition at Station 8+00 and recalculate the factor of safety. If, after the evaluation, the safety factor is determined to be below the guidance level of 1.5, measures will be taken to improve the stability of the embankment. The firm will also review the 2001 stability results and revise as necessary. The evaluation will be completed by January 31, 2010. If corrective actions are required, they will be completed as expeditiously as possible, but no later than September 30, 2010.

2. Protect the embankment crest from developing soft spots that result in vehicle ruts by restricting vehicle traffic or upgrading the crest surface in problem areas.

PacifiCorp Response: The embankment crest was repaired in June, 2009. The repairs were completed by grading the surface, and by adding road base to prevent degradation of the surface due to vehicle traffic. The area will be inspected during routine inspections of the embankment.

3. Consistent with the 2002 Addendum to the Design Report, settlement monitoring near Station 54+00 should be performed and documented as part of operations. This

monitoring should include documentation of observed embankment conditions at, and around, Station 54+00, and a surveyed crest settlement monument.

PacifiCorp Response: Due to vehicular traffic, a surveyed crest monument at this location would not be very effective as a monitoring device because it would be so difficult to maintain. PacifiCorp will, however, install a survey monument as near to Station 54+00 as practicable so as to gain the most benefit from this device while still avoiding damage from vehicle traffic and road maintenance. The survey monument will be located near the crest, along the road. Settlement monitoring will be performed and documented during routine inspections of the embankments. The survey monument is expected to be completed by November 15, 2009.

4. Abandon the CMP at Station 59+00 in-place by grouting full or remove the CMP if it is found to serve no useful purpose or if it penetrates beneath the dam.

PacifiCorp Response: The CMP at Station 59+00 will be removed or fully grouted by November 15, 2009.

12.1.3 FGD Pond 1 Outlet Structure – FGD Pond 2 Inlet Structure

1. Repair the north and west safety railing; stabilize surrounding soils, and clear debris from the structure.

PacifiCorp Response: The railings will be repaired, and surrounding soils stabilized. Any debris at the location will be removed. Work is expected to be completed by November 15, 2009.

12.2 Corrective Measures Required for Maintenance and Surveillance Procedures

1. Address the excessive sage brush vegetation on FGD Pond 1 main dam.

PacifiCorp Response: This recommendation is contrary to the state-approved closure plan for FGD Pond 1. The closure plan specifies that the site be capped with a soil cover, then "...seeded with native plant species to promote transpiration and return the site to a natural state." In addition to grasses forbs, and other native shrubs, sagebrush is one of the shrubs specifically included in the seed mixture used to seed the area. The growth of native plants is essential in reducing erosion to the cap of the closed impoundment. Although the growth of sage brush on a water impoundment may be a concern due to the potential of tap root penetration through the core of the embankment, this is not the case for FGD Pond #1 as it is in a dewatered state, and will remain so permanently.

2. Monitor and repair the minor surface erosion present at various locations on the upstream face of FGD Pond 2.

PacifiCorp Response: PacifiCorp will monitor erosion during routine inspections, and repair areas of erosion as they are identified. The source of the erosion at these locations

has been eliminated. Any existing erosion problems will be repaired by November 15, 2009.

3. Perform studies to demonstrate that FGD solids are equal to, or stronger than, the compacted embankment or discount the contribution of infilling with FGD solids to replace eroded dam embankment. Monitor wave erosion and take measures to address excessive erosion such that the upstream slope geometry remains within an acceptable sacrificial zone as identified based on revised slope stability and seepage analysis for the dam.

PacifiCorp Response: Please see the response to item 12.1.2.1. A geotechnical firm will evaluate and revise the slope stability analysis as necessary to determine loading conditions and stability of the embankment. The evaluation will be completed by January 31, 2010. If corrective actions are required, they will be completed as expeditiously as possible, but no later than September 30, 2010.

4. Document inspections using a checklist for consistency.

PacifiCorp Response: A formalized inspection process will be implemented for FGD Pond 2, based on the recommendations in EPA's final report. The process will include an annual inspection schedule and a checklist. The first inspection will be completed by December 1, 2009

12.3 Corrective Measures Required for the Methods of Operation of the Project Works

None.

12.4 Any New or Additional Monitoring Instruments, Periodic Observations, or Other Methods of Monitoring Project Works or Conditions That May Be Required

1. Install instrumentation to monitor the performance of the FGD Pond 2 dams and dikes and implement a program of regular readings and engineering evaluation of the data. Instrumentation and the associated monitoring program provide important information about the internal performance of a dam and its foundation. Instrumentation may be implemented as a modest program at key locations initially and supplemented in the future based on the monitoring results and visual inspections of the dam performance.

PacifiCorp Response: PacifiCorp will contract with a geotechnical firm to develop a program to monitor the integrity of the FGD Pond 2 dams and dikes. Monitoring instrumentation will be installed as recommended by the consultant, and an appropriate monitoring plan will be implemented. The monitoring program will be implemented by January 31, 2010. If corrective actions are required, they will be completed as expeditiously as possible, but no later than September 30, 2010.

2. Continue monitoring seepage at the downstream toe of FGD Pond 2 northern embankment for any changes in seepage quantity and flow rate or evidence that the flow is carrying soil/ash particles from the embankment.

PacifiCorp Response: Monitoring of the seepage rates at the downstream toe of FGD Pond 2 northern embankment will be included in the formal inspection process of FGD Pond 2. The seepage flow rates have been monitored on a quarterly basis and this monitoring will be continued. The seepage flow has been estimated based on pumping power consumption. PacifiCorp will test the use of a flow meter at this site in an effort to more accurately quantify the flows from this location.